



PCT10

ENTERED

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/070,503

DATE: 11/19/2002

TIME: 16:52:14

Input Set : A:\10.070503.txt

Output Set: N:\CRF4\11192002\J070503.raw

3 <110> APPLICANT: Viventia Biotech Inc.  
 5 <120> TITLE OF INVENTION: ENHANCED PHAGE DISPLAY LIBRARIES AND METHODS FOR  
 6 PRODUCING SAME  
 8 <130> FILE REFERENCE: 33956-49  
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/070,503  
 11 <141> CURRENT FILING DATE: 2000-09-07  
 13 <150> PRIOR APPLICATION NUMBER: PCT/CA00/01027  
 14 <151> PRIOR FILING DATE: 2000-09-07  
 16 <150> PRIOR APPLICATION NUMBER: CA2282179  
 17 <151> PRIOR FILING DATE: 1999-09-07  
 19 <150> PRIOR APPLICATION NUMBER: US60/163,546  
 20 <151> PRIOR FILING DATE: 1999-11-04  
 22 <160> NUMBER OF SEQ ID NOS: 60  
 24 <170> SOFTWARE: PatentIn Ver. 2.1  
 26 <210> SEQ ID NO: 1  
 27 <211> LENGTH: 396  
 28 <212> TYPE: DNA  
 29 <213> ORGANISM: human  
 31 <400> SEQUENCE: 1  
 32 gaggtccagc tgcaggagtc tgggggaggc ttagtccagc ctgggggggtc cctgagactc 60  
 33 tcctgttcag cctctggatt cacccttcagt agctatgcta tgcactgggt ccgccaggct 120  
 34 ccaggggaag gactggaata tgtttcagct attagtagta atgggggtag cacatactac 180  
 35 gcagactccg tgaagggcag attcaccatc tccagagaca attccaagaa cactctgtat 240  
 36 cttcaaatga gcagtctgag agctgaggac acggctgtgt attactgtgt gaaagacagg 300  
 37 ttaaaagtgg agtactatga tagtagtggt tattacgttt ctcggttcgg tgcttttgat 360  
 38 atctggggcc aagggacaac ggtcaccgtc tcatca 396  
 41 <210> SEQ ID NO: 2  
 42 <211> LENGTH: 132  
 43 <212> TYPE: PRT  
 44 <213> ORGANISM: human  
 46 <400> SEQUENCE: 2  
 47 Glu Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly  
 48 1 5 10 15  
 50 Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 51 20 25 30  
 53 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val  
 54 35 40 45  
 56 Ser Ala Ile Ser Ser Asn Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val  
 57 50 55 60  
 59 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr  
 60 65 70 75 80  
 62 Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys  
 63 85 90 95

## RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/10/070,503

TIME: 16:52:14

Input Set : A:\10.070503.txt

Output Set: N:\CRF4\11192002\J070503.raw

65 Val Lys Asp Arg Leu Lys Val Glu Tyr Tyr Asp Ser Ser Gly Tyr Tyr  
 66                   100                   105                   110  
 68 Val Ser Arg Phe Gly Ala Phe Asp Ile Trp Gly Gln Gly Thr Thr Val  
 69                   115                   120                   125

71 Thr Val Ser Ser

72           130

75 &lt;210&gt; SEQ ID NO: 3

76 &lt;211&gt; LENGTH: 5

77 &lt;212&gt; TYPE: PRT

78 &lt;213&gt; ORGANISM: human

80 &lt;400&gt; SEQUENCE: 3

81 Ser Tyr Ala Met His

82    1                   5

85 &lt;210&gt; SEQ ID NO: 4

86 &lt;211&gt; LENGTH: 16

87 &lt;212&gt; TYPE: PRT

88 &lt;213&gt; ORGANISM: human

90 &lt;400&gt; SEQUENCE: 4

91 Ala Ile Ser Ser Asn Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys

92    1                   5                   10                   15

95 &lt;210&gt; SEQ ID NO: 5

96 &lt;211&gt; LENGTH: 23

97 &lt;212&gt; TYPE: PRT

98 &lt;213&gt; ORGANISM: human

100 &lt;400&gt; SEQUENCE: 5

101 Asp Arg Leu Lys Val Glu Tyr Tyr Asp Ser Ser Gly Tyr Tyr Val Ser

102    1                   5                   10                   15

104 Arg Phe Gly Ala Phe Asp Ile

105                   20

108 &lt;210&gt; SEQ ID NO: 6

109 &lt;211&gt; LENGTH: 33

110 &lt;212&gt; TYPE: DNA

111 &lt;213&gt; ORGANISM: Artificial Sequence

113 &lt;220&gt; FEATURE:

114 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:primer

116 &lt;220&gt; FEATURE:

W--&gt; 117 &lt;221&gt; NAME/KEY: variable residue

118 &lt;222&gt; LOCATION: (16)

119 &lt;223&gt; OTHER INFORMATION: The nucleotide at this position may be a or c

121 &lt;220&gt; FEATURE:

W--&gt; 122 &lt;221&gt; NAME/KEY: variable residue

123 &lt;222&gt; LOCATION: (17)

124 &lt;223&gt; OTHER INFORMATION: The nucleotide at this position may be a, c, t or g

126 &lt;220&gt; FEATURE:

W--&gt; 127 &lt;221&gt; NAME/KEY: variable residue

128 &lt;222&gt; LOCATION: (18)

129 &lt;223&gt; OTHER INFORMATION: The nucleotide at this position may be a, c, t or g

131 &lt;220&gt; FEATURE:

W--&gt; 132 &lt;221&gt; NAME/KEY: variable length

## RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/10/070,503

TIME: 16:52:14

Input Set : A:\10.070503.txt

Output Set: N:\CRF4\11192002\J070503.raw

```

133 <222> LOCATION: (16)...(18)
134 <223> OTHER INFORMATION: The nucleotides at these positions may be repeated
136 <400> SEQUENCE: 6
W--> 137 gccccagata tcaaanntt tcacacagta ata 33
140 <210> SEQ ID NO: 7
141 <211> LENGTH: 18
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial Sequence
145 <220> FEATURE:
146 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
148 <400> SEQUENCE: 7
149 tgttcagcta gcgattc 18
152 <210> SEQ ID NO: 8
153 <211> LENGTH: 42
154 <212> TYPE: DNA
155 <213> ORGANISM: Artificial Sequence
157 <220> FEATURE:
158 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
160 <400> SEQUENCE: 8
161 tgaggagacg gtgaccgttg tcccttgagg ccagatatca aa 42
164 <210> SEQ ID NO: 9
165 <211> LENGTH: 38
166 <212> TYPE: DNA
167 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
172 <400> SEQUENCE: 9
173 catgaccaca gtgcacagga ggtccagctg caggagtc 38
176 <210> SEQ ID NO: 10
177 <211> LENGTH: 18
178 <212> TYPE: DNA
179 <213> ORGANISM: Artificial Sequence
181 <220> FEATURE:
182 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
184 <400> SEQUENCE: 10
185 tttcacacag taatacac 18
188 <210> SEQ ID NO: 11
189 <211> LENGTH: 57
190 <212> TYPE: DNA
191 <213> ORGANISM: Artificial Sequence
193 <220> FEATURE:
194 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
196 <400> SEQUENCE: 11
197 cgattctgcg gccgctgagg agacggtgac cgttgtccct tggccccaga tatcaaa 57
200 <210> SEQ ID NO: 12
201 <211> LENGTH: 35
202 <212> TYPE: DNA
203 <213> ORGANISM: Artificial Sequence
205 <220> FEATURE:

```

## RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/10/070,503

TIME: 16:52:14

Input Set : A:\10.070503.txt

Output Set: N:\CRF4\11192002\J070503.raw

```

206 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
208 <220> FEATURE:
W--> 209 <221> NAME/KEY: variable residue
210 <222> LOCATION: (18)
211 <223> OTHER INFORMATION: The nucleotide at this position may be a or c
213 <220> FEATURE:
W--> 214 <221> NAME/KEY: variable residue
215 <222> LOCATION: (19)
216 <223> OTHER INFORMATION: The nucleotide at this position may be a, g, t or c
218 <220> FEATURE:
W--> 219 <221> NAME/KEY: variable residue
220 <222> LOCATION: (20)
221 <223> OTHER INFORMATION: The nucleotide at this position may be a, g, t or c
223 <220> FEATURE:
W--> 224 <221> NAME/KEY: variable length
225 <222> LOCATION: (18)...(20)
226 <223> OTHER INFORMATION: The nucleotides at these positions may be repeated
228 <400> SEQUENCE: 12
W--> 229 gttgtccctt ggccccannn tttcacacag taata 35
232 <210> SEQ ID NO: 13
233 <211> LENGTH: 30
234 <212> TYPE: DNA
235 <213> ORGANISM: Artificial Sequence
237 <220> FEATURE:
238 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
240 <400> SEQUENCE: 13
241 actttcttgt aattggacct cggcctgcgc 30
244 <210> SEQ ID NO: 14
245 <211> LENGTH: 21
246 <212> TYPE: DNA
247 <213> ORGANISM: Artificial Sequence
249 <220> FEATURE:
250 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
252 <400> SEQUENCE: 14
253 ctctcctgtg ctgcctctgg a 21
256 <210> SEQ ID NO: 15
257 <211> LENGTH: 21
258 <212> TYPE: DNA
259 <213> ORGANISM: Artificial Sequence
261 <220> FEATURE:
262 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
264 <400> SEQUENCE: 15
265 tccagaggca gcacaggaga g 21
268 <210> SEQ ID NO: 16
269 <211> LENGTH: 54
270 <212> TYPE: DNA
271 <213> ORGANISM: Artificial Sequence
273 <220> FEATURE:
274 <223> OTHER INFORMATION: Description of Artificial Sequence:primer

```

## RAW SEQUENCE LISTING

DATE: 11/19/2002

PATENT APPLICATION: US/10/070,503

TIME: 16:52:14

Input Set : A:\10.070503.txt

Output Set: N:\CRF4\11192002\J070503.raw

```

276 <400> SEQUENCE: 16
277 cgcacagtaa tacacagccg tgcctcagc tctcagactg ttcatttgaa gata      54
280 <210> SEQ ID NO: 17
281 <211> LENGTH: 24
282 <212> TYPE: DNA
283 <213> ORGANISM: Artificial Sequence
285 <220> FEATURE:
286 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
288 <400> SEQUENCE: 17
289 gtgtattact gtgcgaaaga cagg      24
292 <210> SEQ ID NO: 18
293 <211> LENGTH: 21
294 <212> TYPE: DNA
295 <213> ORGANISM: Artificial Sequence
297 <220> FEATURE:
298 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
300 <400> SEQUENCE: 18
301 caattacaag ctagtggtgg c      21
304 <210> SEQ ID NO: 19
305 <211> LENGTH: 39
306 <212> TYPE: DNA
307 <213> ORGANISM: Artificial Sequence
309 <220> FEATURE:
310 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
312 <400> SEQUENCE: 19
313 tatggatcct gaggagacgg tgacctgtgt cccttggcc      39
316 <210> SEQ ID NO: 20
317 <211> LENGTH: 38
318 <212> TYPE: DNA
319 <213> ORGANISM: Artificial Sequence
321 <220> FEATURE:
322 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
324 <400> SEQUENCE: 20
325 catgaccaca gtgcacagga ggtccaatta caagaaag      38
328 <210> SEQ ID NO: 21
329 <211> LENGTH: 42
330 <212> TYPE: DNA
331 <213> ORGANISM: Artificial Sequence
333 <220> FEATURE:
334 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
336 <220> FEATURE:
W--> 337 <221> NAME/KEY: variable residue
338 <222> LOCATION: (22)
339 <223> OTHER INFORMATION: The nucleotide at this position may be a or c
341 <220> FEATURE:
W--> 342 <221> NAME/KEY: variable residue
343 <222> LOCATION: (23)
344 <223> OTHER INFORMATION: The nucleotide at this position may be a, g, t or c
346 <220> FEATURE:

```

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/070,503

DATE: 11/19/2002  
TIME: 16:52:15

Input Set : A:\10.070503.txt  
Output Set: N:\CRF4\11192002\J070503.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; N Pos. 16,17,18  
Seq#:12; N Pos. 18,19,20  
Seq#:21; N Pos. 22,23,24

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/070,503

DATE: 11/19/2002

TIME: 16:52:15

Input Set : A:\10.070503.txt

Output Set: N:\CRF4\11192002\J070503.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:117 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6  
L:122 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6  
L:127 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6  
L:132 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6  
L:137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
L:209 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12  
L:214 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12  
L:219 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12  
L:224 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:12  
L:229 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
L:337 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:21  
L:342 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:21  
L:347 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:21  
L:352 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:21  
L:357 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0